

## Description of a new species of *Cantrainea* (Gastropoda: Turbinidae: Colloniinae) from Guadeloupe

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**ABSTRACT.** *Cantrainea yoyottei* n.sp. from Guadeloupe is described and compared with similar turbinid species belonging to genus *Cantrainea* and *Homalopoma*, subfamily Colloniinae.

**RESUME.** *Cantrainea yoyottei* n.sp. de Guadeloupe est décrit et comparé avec des espèces analogues de Turbinidae appartenant aux genres *Cantrainea* et *Homalopoma*, sous-famille des Colloniinae.

### INTRODUCTION

A few month ago, Dominique Lamy, a well known shell collector from the French West Indies, entrusted me with turbinid-shells from deep water off Guadeloupe. These shells obviously belongs to a group of Turbinidae classified in *Homalopoma* Carpenter, 1864 genus and related genera (*Collonista* Iredale, 1918; *Bothropoma* Thiele, 1921; *Cantrainea* Jeffreys, 1883 and so on). This group of species, known as Homalopomatinae by several authors (Keen in Knight et al., 1960; Mc Lean in Keen, 1971; Boss, 1982), is now included in Colloniinae Cossmann, 1916 (Hickman & Mc Lean, 1990). This subfamily has a worldwide distribution, from intertidal to bathyal depths.

Identification of Lamy's shells needed further studies through species from different areas. These studies showed that these shells belonged to a species different from any other one I knew and remained undescribed. The genus *Cantrainea* seems to be the most appropriate.

### Abbreviations

#### Repository

IRSNB : Institut royal des Sciences naturelles de Belgique, Bruxelles.

MNHN : Muséum national d'Histoire naturelle, Paris.

#### Others abbreviations

P1, P2, P3, ...: primary cords (P1 is the most adapical)

S1, S2, S3, ...: secondary cords (S1 is the most adapical)

dd : no live-taken specimens present in sample

lv : live-taken specimens present in sample

### SYSTEMATICS

Family: **TURBINIDAE** Rafinesque, 1815

Subfamily: **COLLONIINAE** Cossmann, 1916

Genus: *Cantrainea* Jeffreys, 1883

Type species: *Turbo peloritanus* Cantraine, 1835 (by monotypy) - Plio-Pleistocene fossil (Sicily) and Recent (Mediterranean Sea and Gulf of Biscay).

*Cantrainea yoyottei* n.sp.

Figs 1-4

### Type material

Guadeloupe, off Pigeon Is., in 550 m, holotype MNHN, 17.6x20.4 mm (dd); 1 paratype IRSNB, in 500 m, 18.3x22.0 mm (dd); 1 paratype collection D. Lamy\*, in 600 m, 20x23 mm (dd).

### Diagnosis

A typical Colloniinae (*Homalopoma*-like) species, but rather large for this subfamily, without umbilicus, with about 12 to 14 spiral cords on last whorl, an obvious keel on shoulder at first third of the whorl and a rounded aperture.

### Description

*Shell* of tall size for the genus (height up to 20 mm, width up to 23 mm), rather thick, larger than high, turbinat in shape; spire rather elevated, 2.2 higher than aperture in mean, last whorl showing concave adapical part and convex abapical part, anomphalous. *Protoconch* smooth or with only minute irregularities, of about 1.5 to 2 whorls (number actually difficult to count accurately, because of roundly perforated apex, probably eroded, on the available specimens). Terminal varix indistinct. *Teleoconch* of about 3.5 whorls, bearing spiral cords and prosocline threads, with one shoulder. Suture visible, not canaliculated.

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First whorl of teleoconch slightly convex, with three smooth primary spiral cords, poorly marked but broad, similar in size, P2 much closer to P3 as to P1. Primary cords stronger on second whorl, P1 staying near adapical suture, forming a keel, P2 forming a distinct keeled shoulder dividing whorl in two parts, each with a straight outline; P2 moving away from P3, reaching half or even first adapical third on last whorl; P4 emerging from under the suture, similar in size to P3, at same distance from P3 as P3 from P2; three subgranular secondary spiral cords appearing between P1 and P2, similar in size to primary cords but weaker, S3 weakly narrower than S1 and S2; space between cords weakly narrower as themselves. Last whorl very large, corresponding to two thirds of total shell height, convex in its abapical part and concave adapically, two areas separated by strong shoulder; periphery with single slight shoulder; prosocline threads more visible with the effect that primary and secondary cords become granular on upper part of whorl, only subgranular or even staying smooth on lower part; P5 appearing from suture, similar in size and shape to P4; some subgranular tertiary primary cords appearing between primary and secondary ones by intercalation.

Aperture subcircular to ovate, transversely elongated, smooth within; outer lip thickened. Columella curved, smooth; columellar callus rather thick, concealing basal cords over which it lies. Base convex, with 12 to 15 smooth spiral cords, similar in size and shape, broader than distance between them; cords near umbilical area partially covered by columellar callosity.

*Colour* of protoconch and first whorl of teleoconch brownish. Other teleoconch whorls whitish, with orange, beige or brown markings.

*Operculum* : unknown.

## Discussion

The keel on the shoulder and the lack of any umbilicus are very distinctive features of the new species. Therefore the genus *Cantrainea* Jeffreys, 1883 was chosen for it, although examination of the operculum or the soft parts may prove that the genus *Homalopoma* Carpenter, 1864 could be a better choice.

The type species of the genus, *Cantrainea peloritana* (Cantraine, 1835) is smaller than *C. yoyottei* and has

a more elevated spire without obvious spiral cords. Also *Cantrainea pauamensis* (Dall, 1908), from tropical East Pacific, is smaller than the new species and has a more elevated spire, with three main spiral cords.

*Homalopoma fukli* Petuch, 1987 from Venezuela is similar in size but not in shape, because it has a more elevated spire narrower in its upper part; its spiral cords are also less numerous and different in shape. Also *Homalopoma indutum* (Watson, 1879) from West Indies has a more elevated spire and less numerous spiral cords.

*C. yoyottei* is a bit similar to *C. macleani* Warren & Bouchet, 1993 (Figs 5-6) from Louisiana, but *C. macleani* is smaller, has a less elevated spire, less numerous spiral cords, a more tangential aperture and has a peripheral keel on last whorl.

*C. philipiana* (Dall, 1889) from the Caribbean Sea, *Homalopoma cunninghami* E.A. Smith, 1881 from Magellanic area and *H. boffii* Marini, 1975 from Brazil are all much smaller and lack the keel. In the same way, *C. jausteci* (Okutani & Fujikura, 1990) from Japan is slightly smaller, lack shoulder keel and has only 4 strong spiral cords on the last whorl. *H. linnei* (Dall, 1889) from West Indies and Brazil is also much smaller, with only a weak shoulder. *H. albida* Dall, 1881, also from West Indies, is much smaller, with less spiral cords on the whorls and the base and bears a columellar tooth. *C. bicarinata* (von Martens, 1904) from South Africa is smaller, with less numerous spiral cords.

## Etymology

The new species is named after Mr Jean-Claude Yoyotte (Guadeloupe), the fisherman who collected the shells from deep waters.

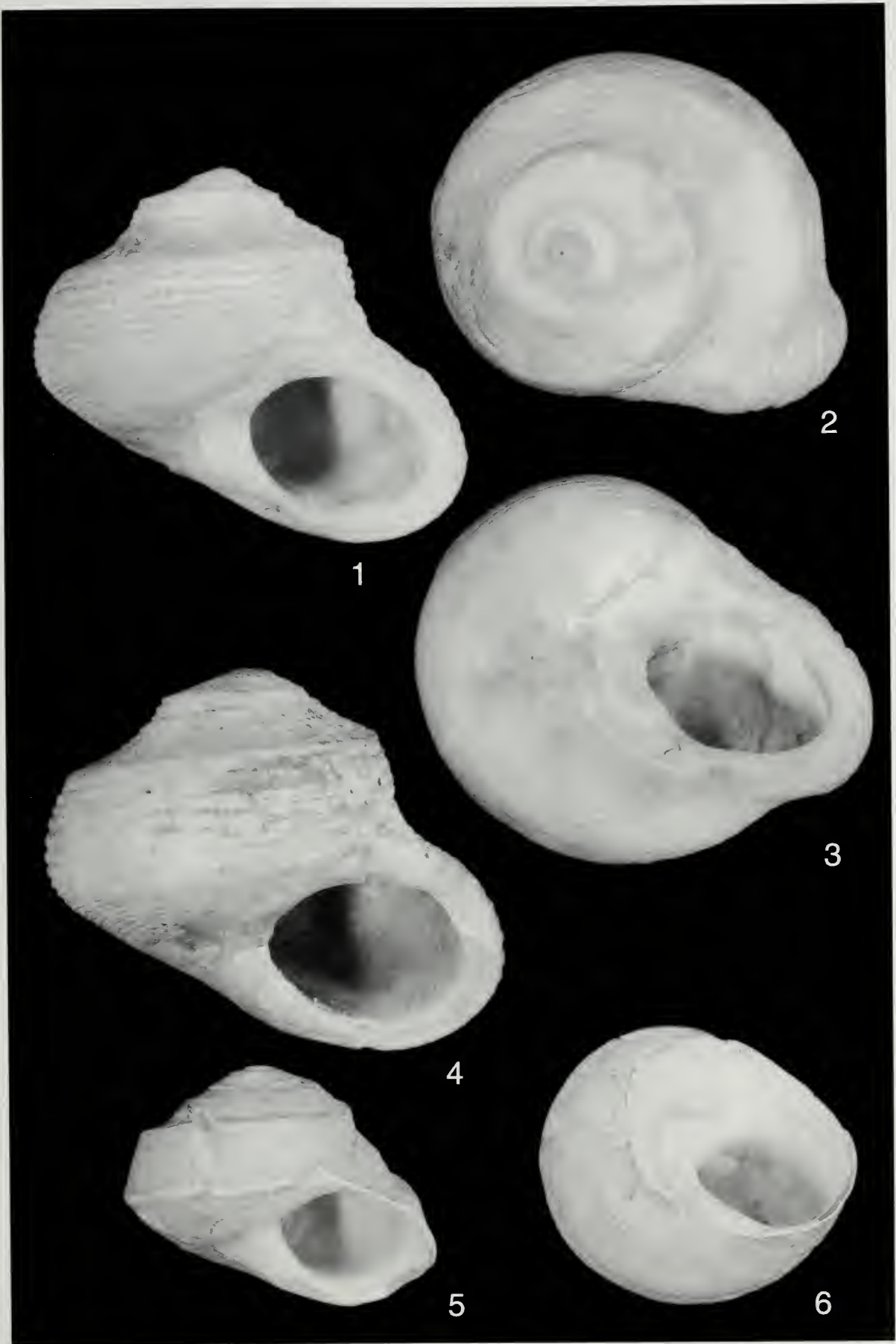
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1-3. *Cantrainea yoyottei* n.sp., holotype MNHN, Guadeloupe, off Pigeon Is., 17. 6 x 20.4 mm.

4. *Cantrainea yoyottei* n.sp., paratype IRSNB, Guadeloupe, off Pigeon Is., 18.3 x 22.0 mm.

5-6. *Cantrainea macleani* Warren & Bouchet, 1993, holotype MNHN, Louisiana Slope, SEALINK 2053, "Bush Hill", 11.4 x 14.6 mm.





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